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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,587	08/04/2000	Kiyomitsu Takizawa	122.1414	1898

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EXAMINER

KING, JUSTIN

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/632,587	Applicant(s) TAKIZAWA ET AL.	
	Examiner Justin I. King	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

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## DETAILED ACTION

### *Claim Objections*

1. Applicant is advised that should claims 10-11 and 15-16 be found allowable, claims 10-11 and 15-16 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over KEEMUX KVM Switch by the Network Technology Inc. in view of Lee (U.S. Patent No. 5,935,254).

Referring to claim 1: The KEEMUX is a PC switching device installed between a keyboard and a plurality of personal computers; it connects to each computer individually and supports the SUN computer's operations, and the Sun computer features the power control via the keyboard stroke. Under KEEMUX's Normal Operating Mode, only the selected PC receives the keyboard signals; hence, the KEEMUX has a plurality of power control switches corresponding respectively to the plurality of personal computers.

The KEEMUX has a LED light for each connected computer; thus, it has the recognizing means for recognizing that some of the plurality of personal computers, which corresponds to at least one of the power control switches firstly pressed, is in a power-on state.

The KEEMUX's Normal Operating Mode is the selective inputting means for selectively inputting commands from one set of input devices to one of the plurality of personal computer.

The KEEMUX's Broadcast Mode the code transmitting means for transmitting codes assigned to the power control switches to certain ones of the personal computers and powering off the same when the certain ones of the Personal computers in the power-on state are selected-by the selective inputting means and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again.

The KEEMUX does not explicitly disclose that the attached keyboard is the one without a power control key.

Lee discloses that it is known to use keyboard or program to control the computer's power (abstract). Lee further discloses that it is known to employ a soft switch, which is any

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keyboard's key for controlling the computer power (column 1, lines 46-47), or to employ a non-soft switch, which specifies a particular keyboard key input for controlling the computer power (column 1, line 35). In the soft switch scenario, since the keyboard does not have a specific key for controlling the computer power, such keyboard is the one without the power control key.

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee's soft switch teaching onto KEEMUX because Lee teaches one to use the soft switch to avoid the circuit damage (column 1, lines 53-54).

Referring to claim 2: The KEEMUX is a PC switching device installed between a keyboard and a plurality of personal computers; it connects to each computer individually and supports the SUN computer's operations, and the Sun computer features the power control via the keyboard stroke. Under KEEMUX's Broadcast Mode is the claimed powering means, which can power all of the plurality of personal computers simultaneously by pressing the keyboard key when the plurality of personal computers are in a power-off state.

The KEEMUX has a LED light for each connected computer; thus, it has the recognizing means for recognizing that some of the plurality of personal computers, which corresponds to at least one of the power control switches firstly pressed, is in a power-on state.

The KEEMUX's Normal Operating Mode is the selective inputting means for selectively inputting commands from one set of input devices to one of the plurality of personal computer.

The KEEMUX's Broadcast Mode the code transmitting means for transmitting codes assigned to the power control switches to certain ones of the personal computers and powering off the same when the certain ones of the Personal computers in the power-on state are

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selected-by the selective inputting means and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again.

The KEEMUX does not explicitly disclose that the attached keyboard is the one with a power control key.

Lee discloses that it is known to use keyboard or program to control the computer's power (abstract). Lee further discloses that it is known to employ a soft switch, which is any keyboard's key for controlling the computer power (column 1, lines 46-47), or to employ a specific keyboard key input for controlling the computer power (column 2, lines 6-7). In the specific keyboard input scenario, since not any key on the keyboard can control the computer power, such keyboard is the one with the power control key.

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee's power control key onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake (column 1, line 66).

Referring to claim 3: The KEEMUX is a PC switching device installed between a keyboard and a plurality of personal computers; it connects to each computer individually and supports the SUN computer's operations, and the Sun computer features the power control via the keyboard stroke.

When KEEMUX powers on a connected computer under its Normal Operating Mode, it is the claimed powering means, which powers some of the plurality of personal computers previously selected by pressing the power control key on the keyboard when all of the plurality of personal computers are in a power-off state.

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The KEEMUX has a LED light for each connected computer; thus, it has the recognizing means for recognizing that some of the plurality of personal computers, which corresponds to at least one of the power control switches firstly pressed, are in a power-on state.

The KEEMUX's Normal Operating Mode is the selective inputting means for selectively inputting commands from one set of input devices to one of the plurality of personal computer.

The KEEMUX's Broadcast Mode the code transmitting means for transmitting codes assigned to the power control switches to certain ones of the personal computers and powering off the same when the certain ones of the Personal computers in the power-on state are selected-by the selective inputting means and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again.

The KEEMUX does not explicitly disclose that the attached keyboard is the one with a power control key.

Lee discloses that it is known to use keyboard or program to control the computer's power (abstract). Lee further discloses that it is known to employ a soft switch, which is any keyboard's key for controlling the computer power (column 1, lines 46-47), or to employ a specific keyboard key input for controlling the computer power (column 2, lines 6-7). In the specific keyboard input scenario, since not any key on the keyboard can control the computer power, such keyboard is the one with the power control key.

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee's power control key onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake (column 1, line 66).

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5. Claims 4-5 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the KEEMUX, Lee, and Kwok (U.S. Patent No. 4,412,245).

Referring to claims 4, 11, and 16: Claim 1's argument applies; furthermore, Lee discloses the transistor for controlling the connecting states (column 5, lines 9-11); however neither prior art explicitly discloses the comparator. The KEEMUX has the LED for indicating each attached host computer's power-on status, but KEEMUX does not explicitly disclose how to power its LED for indicating the connected host computer's power-on status. Kwok discloses a differential current detector and a way to power the LED. Kwok discloses that it is known to couple a comparator's output to a transistor to power the LED (column 7, lines 54-58). Kwok teaches a way to power the LED by comparing the voltage differences; thus, KEEMUX can compare the voltage of the power-on host computer and power the associated LED. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee and Kwok's teachings onto KEEMUX because Lee teaches one to use the soft switch to avoid the circuit damage and Kwok teaches one to utilize the voltage difference to power the indicative LED.

Referring to claims 5 and 13: Claim 2's argument applies; furthermore, Lee discloses the transistor for controlling the connecting states (column 5, lines 9-11); however neither prior art explicitly discloses the comparator. The KEEMUX has the LED for indicating each attached host computer's power-on status, but KEEMUX does not explicitly disclose how to power its LED for indicating the connected host computer's power-on status. Kwok discloses a differential current detector and a way to power the LED. Kwok discloses that it is known to couple a comparator's output to a transistor to power the LED (column 7, lines 54-58). Kwok



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teaches a way to power the LED by comparing the voltage differences; thus, KEEMUX can compare the voltage of the power-on host computer and power the associated LED. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee and Kwok's teachings onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake and Kwok teaches one to utilize the voltage difference to power the indicative LED.

Referring to claim 14: Claim 3's argument applies; furthermore, Lee discloses the transistor for controlling the connecting states (column 5, lines 9-11); however neither prior art explicitly discloses the comparator. The KEEMUX has the LED for indicating each attached host computer's power-on status, but KEEMUX does not explicitly disclose how to power its LED for indicating the connected host computer's power-on status. Kwok discloses a differential current detector and a way to power the LED. Kwok discloses that it is known to couple a comparator's output to a transistor to power the LED (column 7, lines 54-58). Kwok teaches a way to power the LED by comparing the voltage differences; thus, KEEMUX can compare the voltage of the power-on host computer and power the associated LED. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee and Kwok's teachings onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake and Kwok teaches one to utilize the voltage difference to power the indicative LED.

Referring to claims 10, 12, and 15: KEEMUX and Lee's disclosures are stated above; the keyboard is powered by the host computer, which provides the power for keyboard's indicative lights (Number Lock, Caps Lock, and Scroll Lock), and there is only one cable between the host

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computer and keyboard, such that the host computer's connecting port is the power supply terminal and the keyboard's connecting port is the power receiving terminal; and a voltage divider is at the host computer's power supply terminal to distribute the voltage to the keyboard; and the host computer's main power voltage is the first voltage divided by the voltage divider. Since the KEEMUX is between the host computer and keyboard, it receives the voltage from every connected host computer and distributes the voltage to the keyboard; and since it receives voltage from every host computer, the total combined voltage for keyboard will be higher than expected if there is more than one powered host computer; thus, the voltage will need to be divided by the number of the powered host computers.

#### ***Response to Amendment***

6. The claims objection and 112 2<sup>nd</sup> paragraph Rejection from the previous Office Action on claims 1, 4, 10-11, and 15-16 are withdrawn in light of Applicant's amendment on 9/3/04. However, a new objection to the amended claims 15-16 is found because the amended claims 15 and 16 are now identical to claims 10 and 11.

#### ***Conclusion***

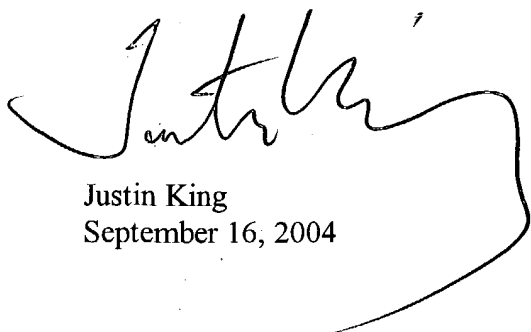
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin I. King whose telephone number is 703-305-4571. The examiner can normally be reached on Monday through Friday, 9:00 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart

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can be reached on 703-308-3110. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lastly, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.



Justin King  
September 16, 2004



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**SUPERVISORY PATENT EXAMINER**  
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